

लेन, लेन-फेग और फर्ग्यूसन पैटर्न के हड्डी  
धारण फोरसेप्स — विशिष्टि

( पहला पुनरीक्षण )

**Lane's, Lane-Fagge's and  
Fergusson's Patterns Bone Holding  
Forceps — Specification**

( *First Revision* )

ICS 11.040.40

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भारतीय मानक व्यूरो

BUREAU OF INDIAN STANDARDS

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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Orthopaedic Instruments, Implants and Accessories Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This standard was originally published in 1971. The first revision of this standard has been brought out to align it with the recent developments and to bring the standard in line with the latest style and format of Indian Standards.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

*Indian Standard*

# LANE'S, LANE-FAGGE'S AND FERGUSSON'S PATTERNS BONE HOLDING FORCEPS — SPECIFICATION

( *First Revision* )

## 1 SCOPE

This standard specifies the requirements for bone holding forceps of Lane's, Lane-Fagge's and Fergusson's patterns.

## 2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

IS No.	Title
IS 1570 (Part 5) : 1985	Schedules for wrought steels: Part 5 Stainless and heat-resisting steels ( <i>second revision</i> )
IS 7531 : 1990	Surgical Instruments — Corrosion resistance of stainless-steel surgical instruments — Methods of tests ( <i>first revision</i> )

## 3 MATERIAL

### 3.1 Arms

The arms shall be of stainless steel conforming to designation X30Cr13 of IS 1570 (Part 5).

### 3.2 Screws

The screws shall be stainless steel conforming to designation X22Cr13 of IS 1570 (Part 5).

## 4 SHAPE AND DIMENSIONS

The shape and dimensions shall be as shown in Fig. 1, Fig. 2 and Fig. 3.

## 5 WORKMANSHIP AND FINISH

**5.1** The forceps shall be free from rough edges, pits, burrs, cracks and blemishes of any kind.

**5.2** The teeth on the jaws shall be well formed and clean.

**5.3** The two arms shall move freely and smoothly at the joint without any undue play.

**5.4** The forceps shall be finished smooth, passivated and polished bright except that in the case of the forceps of Lane's and Lane-Fagge's patterns, the outside surface shall have matte finish to provide firm grip.

## 6 HEAT TREATMENT

The forceps shall be hardened and tempered to 380 HV to 420 HV.

## 7 TESTS

### 7.1 Rigidity Test

Hold a piece of hardwood of minimum thickness of 12 mm, in the jaws of the forceps. Apply a compressive force of 1 000 N to the handles of the forceps at the place of maximum convexity. Allow the force to act for two minutes. On completion of the test, the forceps shall show no sign of damage or permanent set.

### 7.2 Corrosion Resistance Test

The forceps shall satisfy the requirements when tested in accordance with IS 7531.

## 8 MARKING

**8.1** The forceps shall be marked with the following:

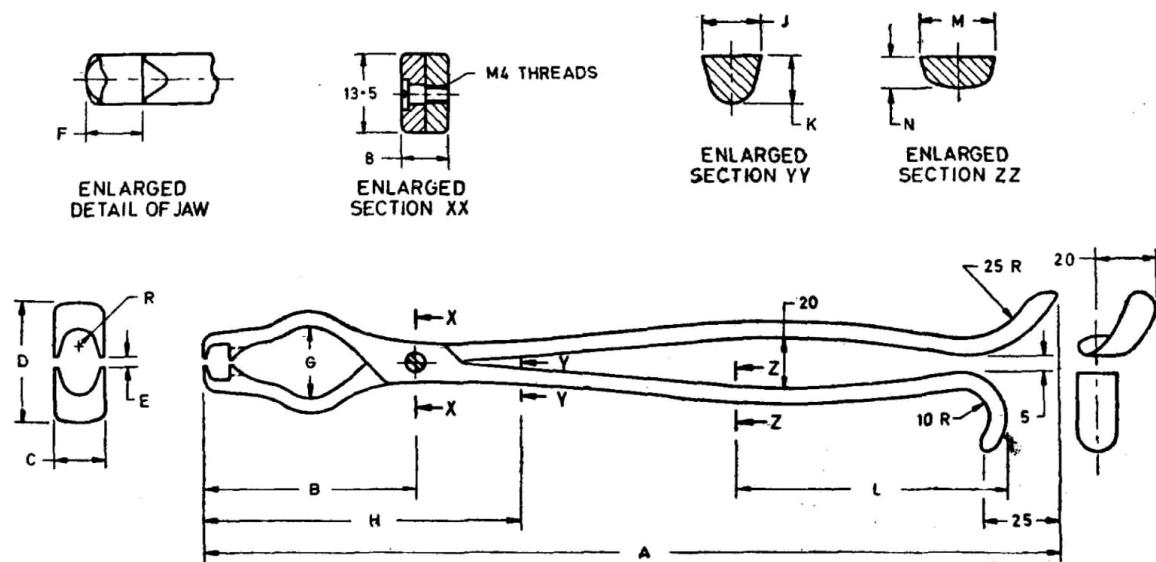
- Manufacturer's name, initials or registered trade-mark;
- Size of the forceps, in the case of Lane's and Lane-Fagge's patterns; and
- Country of origin.

### 8.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed there under, and the product(s) may be marked with the Standard Mark.

## 9 PACKING

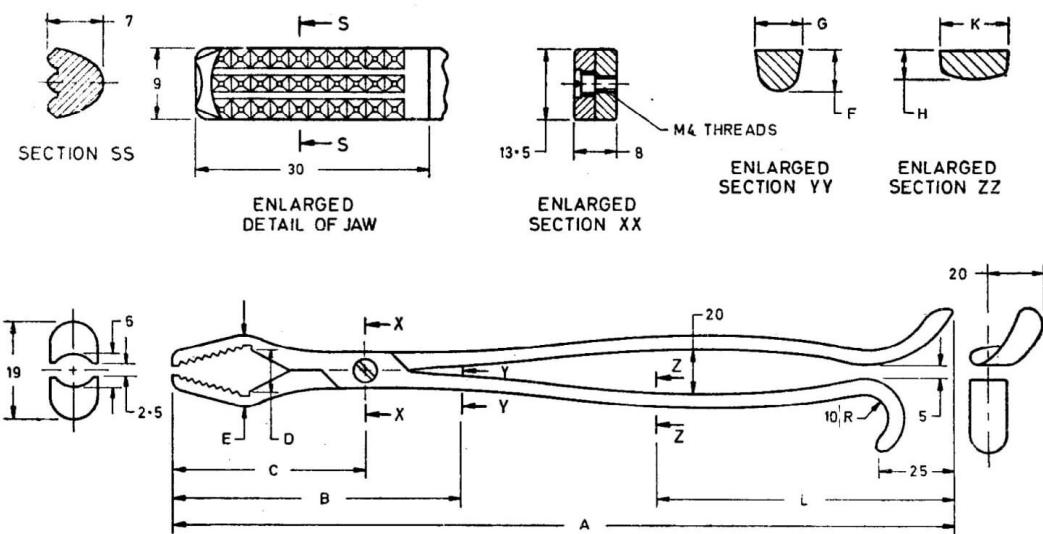
The packing shall be as agreed to between the purchaser and the supplier.



Size (1)	A (2)	B (3)	C (4)	D (5)	E (6)	F (7)	G (8)	H (9)	J (10)	K (11)	L (12)	M (13)	N (14)
<b>Large</b>	400	85	9.0	24	2.5	12	28	120	10	8.0	125	14	6.0
<b>Medium</b>	300	75	8.5	21	2.0	10	26	110	9	7.5	95	13	5.5
<b>Small</b>	250	65	8.0	18	2.0	8	24	100	8	7.0	65	12	5.0

All dimensions in millimeters.

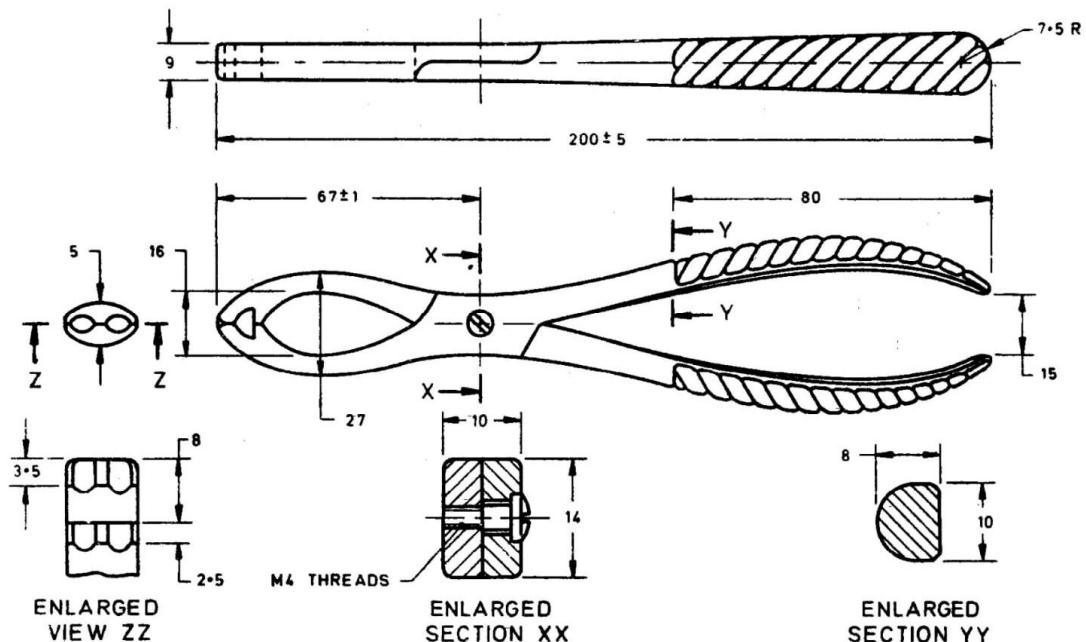
Fig. 1 BONE HOLDING FORCEPS: LANE'S PATTERN



Size	A	B	C	D	E	F	G	H	K	L
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Medium</b>	300	110	75	15	26	7.5	9	5.5	13	95
<b>Small</b>	250	100	70	13	24	7.0	8	5.0	12	65

All dimensions in millimeters.

FIG. 2 BONE HOLDING FORCEPS: LANE-FAGGE'S PATTERN



All dimensions in millimeters.

FIG. 3 BONE HOLDING FORCEPS: FERGUSSON'S PATTERN





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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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